Reviewer’s report

**Title:** A Population-based Analysis of Leaving the Hospital Against Medical Advice: Incidence and Predictors

**Version:** 2  **Date:** 26 July 2013

**Reviewer:** David Alfandre

**Reviewer’s report:**

General Comments: This is an interesting and thoughtful qualitative study that addresses an important topic in medicine that is lacking quality empiric data. The authors are to be congratulated on attempting to tackle such an issue in an innovative and rigorous way. There are however, limitations with some of the sections, that if addressed, can make this paper appropriate for publication.

- **Major Compulsory Revisions**

  1. The manuscript alternates between describing variables that are associated with leaving AMA and “predictors” of leaving AMA. Obviously those two descriptions have different implications. The paper would be strengthened if it was clearer how those terms were to be used.

  2. Background; “Identification of patients at high risk of leaving AMA is important in the design of interventions to reduce these consequences.” There are a number of presumptions in this sentence which should be further clarified. The statement should be referenced if it has come from another author, but if it doesn’t, it should be clarified exactly how identifying these patients will reduce morbidity or mortality of AMA patients. There is currently little understanding of what is responsible for the higher morbidity and mortality of these patients. The presumption is that it is due to the consequences of not following a physicians advice, but that has not been established in the literature, and there are other possible reasons (e.g., poor follow up, stigmatization, physician-related variables).

  3. Results: Paragraph 3. “Individuals who had major surgical procedures were substantially less likely to leave AMA.” There is no test of significance shown in Table 1.

  4. Results: Paragraph 7. Although many of the variables studied were statistically significant, the text focuses only on some, presumably because they had larger odds ratios. There is no description in the methods of how OR>1.5 or <0.75 are to be considered more significant in terms of reporting. These are described as “prominent,” but readers might wonder why.

  5. Discussion, Paragraph 2. There is no discussion of the range of variables that were found to be significant in Table 4. The authors have focused on only those that showed a larger effect. Readers might want to know the authors interpretation of why the other variables were significant. Similarly, there is limited discussion of the variables with a lower association with AMA. Again the
authors only focused on the surgical procedures, but there were multiple variables that had OR’s <1 (e.g., neoplasms, diseases of the genitourinary system). The paper would benefit from a fuller description of all the significant data, not simply the data that appears to confirm previous reports.

6. Discussion, paragraph 5. An additional limitation of the study not mentioned are the physician related variables that weren’t studied. Because the decision to leave the hospital lies with the competent patient, but the choice to designate a discharge as AMA lies with the physician, a full understanding of AMA predictors isn’t complete without data about physicians who discharge patients AMA.

7. Conclusion: Identifying patients at risk of leaving AMA is a step, but the authors have not established why it should be the first step in designing approaches to limiting AMA admissions. Also, the idea that identifying AMA patients will lead to effective interventions has been reported in past studies, but the authors don’t indicate how that’s been demonstrated (if at all). Referencing this point will strengthen the conclusion section. Regarding Points this as well as Reviewer Point #6, the authors are referred to a recent publication on the topic that elaborates on these limitations in the literature. (Alfandre D. Reconsidering Against Medical Advice Discharges: Embracing Patient-Centeredness to Promote High Quality Care and a Renewed Research Agenda. J Gen Intern Med. 2013 Jul 2. [Epub ahead of print] PubMed PMID: 23818160.)

8. Table 3: The confidence interval is missing under “Chronic co-morbid conditions.”

9. Statistical reviewers can provide input on whether the various p levels are necessary and provide useful information for the reader (p<0.0001, p>0.0001 and <0.001, etc).

The author must respond to these before a decision on publication can be reached. For example, additional necessary experiments or controls, statistical mistakes, errors in interpretation.

- Minor Essential Revisions

The author can be trusted to make these. For example, missing labels on figures, the wrong use of a term, spelling mistakes.

NONE

- Discretionary Revisions

These are recommendations for improvement which the author can choose to ignore. For example clarifications, data that would be useful but not essential.

1. Background, paragraph 2: Referencing peer reviewed, published work first in the sentence, rather than after the description of the authors unpublished work would strengthen this portion of the background section.

2. Methods: 11th paragraph; “having gone AMA” is at variance with the other descriptions of AMA behavior in the paper. Readers would benefit from the use
of a single phrase to describe AMA behavior.

3. Results paragraph 5; “As the characteristics that make an individual go AMA once, are likely similar other than past experience, to those that make him or her go AMA a second time, including previous AMA discharges in analysis may confound the association with other characteristics that influence an individual to leave AMA.” Readers might find this sentence confusing. It would benefit from being re-phrased.

4. Reference #11 is over 30 years old, methodologically weak and may not provide useful information to the reader given the wealth of other stronger studies cited in the paper.

5. Figure legend for Table 2 may confuse readers. Would it benefit from indicating the following? “Most responsible hospital diagnosis associated with leaving AMA”

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:

I declare that I have no competing interests